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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,721	08/22/2001	Yasuo Ojima	08009.0006	6271

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EXAMINER	
ANDREWS, MELVYN J	
ART UNIT	**PAPER NUMBER**
1742	8

DATE MAILED: 04/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/933,721	Applicant(s) OJIMA ET AL.	
	Examiner Melvyn J. Andrews	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102/ 35 USC §103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 to 4 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over the Japanese patent (JP 2000-63963) (Translation Patent Abstracts of Japan). The Japanese patent anticipates the claims for the reasons set forth in Paper No.6.

Applicants' arguments filed February 11,2003 have been fully considered but they are not persuasive. Applicants argue that JP'963 does not disclose the "CaO ratio being greater than 0.5 to 0.6" this is correct but nevertheless there is no patentable difference between the '963 ratio 0.6 and the claimed ratio greater than 0.6 so that the the claims are anticipated by JP'963 since the numerical values of ratios touch In re Titanium Metals Corporation of America v. Banner 227 USPQ 773.

Claims 1 to 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent (JP 2000-63963) (Translation Patent Abstracts of Japan). The'963 ratio does not overlap the claimed ratio but are close enough that one skilled in the art at the time the invention was made would have expected that the ratios would have the same properties with respect to the removal of Fe and S from the product.
In re Titanium Metals Corporation of America v. Banner 227 USPQ 773.

Claims 5 to 10 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese patent (JP 2000-63963)

(Translation Patent Abstracts of Japan). The Japanese patent anticipates the claims for the reasons set forth in Paper No.6. Applicants argue that JP'963 does not disclose the "CaO ratio being greater than 0.5 to 0.6" this is correct but nevertheless there is no patentable difference between the '963 ratio 0.6 and the claimed ratio greater than 0.6 so that the claims are anticipated by JP'963 since the numerical values of ratios touch In re Tianium Metals Corporation of America v. Banner 227 USPQ 773; likewise, with respect to the '963 Fe ratio which touches the claimed Fe ratio greater than 0.5.

Claims 5 to 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese patent (JP 2000-63963) (Translation Patent Abstracts of Japan). The'963 ratio does not overlap the claimed ratio but are close enough that one skilled in the art at the time the invention was made would have expected that the ratios would have the same properties with respect to the removal of Fe and S from the product. In re Titanium Metals Corporation of America v. Banner 227 USPQ 773.

Claims 1 to 10 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 00/09772 (Yazawa et al, US Patent No. 6,416,565 the English equivalent of publication WO 00/09772). The WO 00/09772 publication is relied on for its publication date but the US Patent is relied on as an English language equivalent. Yazawa et al discloses a method of removing Fe and S from a copper sulfide concentrate such that the slag has a composition in which a weight ratio of CaO to (SiO_2+CaO) is 0.3 to 0.6 and a weight ratio of Fe to (FeO_x + SiO_2 +CaO) of 0.2 to 0.5 (col.11, line 46 to col.12 line 56) which anticipates the claimed methods since the ratios touch, In re Titanium Metals Corporation of America v.

Banner 227 USPQ 773; alternatively, the claimed methods are obvious even though the Yazawa et al Fe to S ratios do not overlap the claimed ratio but are close enough that one skilled in the art at the time the invention was made would have expected that the ratios would have the same properties with respect to the removal of Fe and S from the product. In re Titanium Metals Corporation of America v. Banner 227 USPQ 773.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 to 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 to 10 of U.S. Patent No. 6,416,565. Although the conflicting claims are not identical, they are not patentably distinct from each other because the'565 slag composition containing CaO and Fe does not patentably differ from the claimed slag composition. In re Titanium Metals Corporation of America v. Banner 227 USPQ 773.

Claim R jections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

Claims 1 to 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 5 recites the limitation "Fe" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claims 1 and 5 are indefinite because the exact sequence of steps are not clearly recited the slag composition is apparently recited prior to the step of aadition of SiO_2 and CaO. It is suggested that the format of Claims 1 to 5 of US Patent 6,416,565 be used.

Response to Arguments

Applicant's arguments, see Paper No.7, filed, with respect to the patent to Edwards et al US Patent No.5,888,270 have been fully considered and are persuasive since Edwards et al does not disclose or suggest a method of smelting copper sulfide concentrate using a burner located above a melt. The rejection of Claims 1, 3 to 4, 5, 9 and 10 based on Edwards et al has been withdrawn.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvyn J. Andrews whose telephone number is 703-308-3739. The examiner can normally be reached on 8:00A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

mja
April 14, 2003

Melvyn Andrews

MELVYN ANDREWS
PRIMARY EXAMINER